SERIES AT2DH3 | ATEX APPROVED DH3 DIFFERENTIAL PRESSURE CONTROLLER

FEATURES/BENEFITS

- **3-in-1 ATEX approved instrument allows the reduction of several instruments with one product, saving inventory, installation time and money**
- **Flame-proof ATEX enclosure with optional glass window and aluminum housing protects the device in hazardous areas while giving local visibility to process pressure and set point status**

APPLICATIONS

- Hazardous area pressure measurement and switching

DESCRIPTION

The ATEX approved **SERIES AT2DH3** Digihelic® Differential Pressure Controller is a 3-in-1 instrument possessing a digital display gage, control relay switches, and a transmitter with current output. Combining these three features allows the reduction of several instruments with one product, saving inventory, installation time and money. The ATEX approved Digihelic® controller is the ideal instrument for hazardous area pressure, velocity and flow applications by allowing for the selection of pressure, velocity or volumetric flow operation in several commonly used engineering units. Two SPDT control relays with adjustable dead bands are provided along with a scalable 4 to 20 mA process output. In velocity or flow modes, a square root output is provided on the 4 to 20 mA signal to coincide with the actual flow curve. Flame-proof ATEX enclosures are available in aluminum and can include a glass window for viewing process information and set point status on digital display.

DWYER INSTRUMENTS, INC.
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SPECIFICATIONS

Service	Air and non-combustible, compatible gases.
Wetted Materials	Consult factory.
Housing Material	Die cast aluminum case and bezel.
Accuracy	< 5 in w.c. (except ±2.5 in w.c.): ±1%; All other ranges: ±0.5% at 77°F (25°C) including hysteresis and repeatability (after 1 hour warm-up).
Stability	< ±1% per year.
Pressure Limits	Ranges ≤ 2.5 in w.c.: 25 psi; ±2.5″, 5 in w.c.: 5 psi; 10 in w.c.: 5 psi; 25 in w.c.: 5 psi; 50 in w.c.: 5 psi; 100 in w.c.: 9 psi.
Temperature Limits	32 to 140°F (0 to 60°C) Case: -76 to 140°F (-60 to 60°C) (**Note:** Product temperature limits differ from case).
Compensated Temperature Limits	32 to 140°F (0 to 60°C).
Thermal Effect	0.020%/°F (0.036/°C) from 77°F (25°C).
Power Requirements	12 to 28 VDC, 12 to 28 VAC 50 to 400 Hz.
Power Consumption	3 VA max.
Output Signal	4 to 20 mA DC into 900 Ω max.
Zero & Span Adjustments	Accessible via menus in safe zone only.
Response Time	250 ms (damping set to 1).
Display	Backlit 4 digit LCD 0.4″ height LED indicators for set point and alarm status.
Electrical Wiring	Screw terminal.
Mounting Orientation	Mount unit in vertical plane.
Dial Size	5″ (127 mm) OD x 3-1/8″ (79.38 mm).
Enclosure Rating	(IP66). IP65 with option OPV, overpressure relief valve.
Housing Material	Aluminum.
Finishing	Texture epoxy coat RAL7038.
Pressure Connections	1/8″ NPT female brass (SS optional). In presence of acetylene it is necessary to use SS.
Electrical Connections	Two 1/2″ FNPT. Cable gland not included.
Weight	12.3 lb (5.6 kg).
ATEX Approved Products from Comhas with ECN	BVI 14ATEX0072.
Agency Approvals	CE 1370 II2 GD Ex d IIC Gb T6; -60°C ≤ Ta ≤ +60°C Ex tb IIIC Db T 85°C.

SWITCH SPECIFICATIONS

Switch Type	2 SPDT relays.
Electrical Rating	1 A @ 30 VAC/VDC.
Set Point Adjustment	Adjustable via keypad on face in safe zone only.

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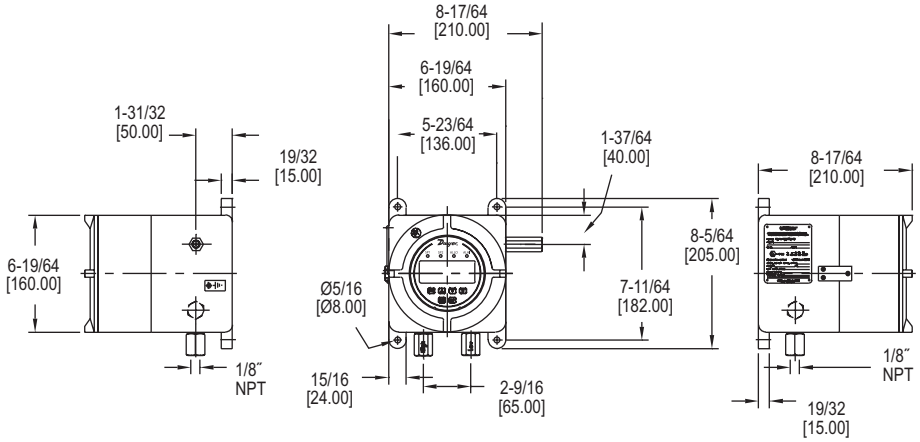
DIMENSIONS



HOW TO ORDER

Use the **bold** characters from the chart below to construct a product code.

AT2DH3 **-002** **-A** **B** **1** **X** **T2**

SERIES
AT2DH3: DH3 with ATEX enclosure

RANGE
-002: 0.25 in w.c.
-003: 0.5 in w.c.
-004: 1 in w.c.
-005: 2.5 in w.c.
-006: 5 in w.c.
-007: 10 in w.c.
-009: 25 in w.c.
-010: 50 in w.c.
-011: 100 in w.c.
-013: -0.25 ±0.25 in w.c.
-014: -0.50 ±0.50 in w.c.
-015: -1.00 ±1.00 in w.c.
-016: -2.50 ±2.50 in w.c.
-017: -5.00 ±5.00 in w.c.
-018: -10.0 ±10.0 in w.c.

HOUSING MATERIAL
-A: Aluminum

COVER
B: Blind top cover
O: Glass top cover

TAG
T2: Stainless steel tag

OVERPRESSURE PLUG
X: Standard without overpressure relief valve
OPV: Overpressure relief valve

PRESSURE CONNECTION
1: 1/8″ Female NPT brass pressure ports
2: 1/8″ Female NPT SS pressure ports

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NOTES

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